

## ABSTRACT

Alignment parameters determination method with less overlay error after exposure without tremendous expending time and cost is provided. Provision is made of a fetching unit 610 performing position measurement for measurement points set for each of any shots through opto-electric detection and statistical processing based on the measured positions and design positions of said measurement points to obtain reference computation results, a fetching unit 640 obtaining reference processing results obtained by positioning and exposing the shots at a predetermined exposure apparatus based on the reference computation results, then measuring overlay error for said shots, a fetching unit 620 changing at least parts of the predetermined alignment parameters and performing position measurement for measurement points set for each shot and statistical processing based on the measured positions and design positions of said measurement points to obtain comparative computation results, and a controller 650 calculating estimated overlay error when assuming positioning and exposure of shots at a predetermined exposure apparatus based on the comparative computation results using the reference computation results,

comparative computation results, and reference  
processing results.